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PATENT ABSTRACTS OF JAPAN

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(21)Application number : **62-203853**(71)Applicant : **DIAFOIL CO LTD**(22)Date of filing : **17.08.1987**(72)Inventor : **FUKUDA YUJIRO
UCHIUMI SHIGEO**

(54) HEAT-RESISTANT POLYESTER FILM FOR TRANSFER FILM

(57)Abstract:

PURPOSE: To give excellent deep-drawing nature, flatness and heat resistance, and very few coarse particles included in a base film for transfer as well by limiting second order transition temperature, mean refractive index, degree of plane orientation and heat of dissolution, respectively, of the film.

CONSTITUTION: Second order transition temperature (T_g) must be at least 70°C in the state of film, for instance, what is cheaply obtained with industrial means is copolymerized polyester having polyethylene terephthalate as the base and added with neopentyl glycol and 1,4-cyclohexane dimethanol as diol components. It is also necessary that degree of plane orientation ΔP expressed with $\Delta P = (\eta_\gamma + \eta_\beta)/2 - n_\alpha$ is from 0.05 to 0.14, where the largest refractive index in the film plane is denoted as η_γ , refractive index in the direction normal to it as η_β , that in the direction of thickness as n_α ; also that average value of mean refractive index n of the film expressed as $(n_\alpha + \eta_\beta + \eta_\gamma)/3$ is 1.598 or smaller; and it is further an important condition that heat of melting of the filter is 8 cal/G or smaller.

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PATENT ABSTRACTS OF JAPAN

(11)Publication number : **03-288699**

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(21)Application number : **02-091148**

(71)Applicant : **TOPPAN PRINTING CO LTD**

(22)Date of filing : **05.04.1990**

(72)Inventor : **TAKAGI TAKASHI
AZUMA MASANOBU**

(54) TRANSFER FOIL

(57)Abstract:

PURPOSE: To sufficiently follow even a molded product whose corner parts have a small R by deep drawing by successively providing a separating layer consisting of a release varnish layer, a pattern layer and an adhesive layer to a film formed by biaxially stretching specific polyethylene terephthalate.

CONSTITUTION: As a base sheet, a polyester film whose thickness is set to at least 30 μ m formed by biaxially stretching polyethylene terephthalate obtained by adding a resin avoiding crystallization at the time of the polycondensation of terephthalic acid and ethylene glycol is used. A release varnish layer is provided in 1 μ m thickness from a low temp. baking type acrylic polyol resin and a pattern layer is formed using ink containing an urethane resin and an adhesive layer is provided in 1.8 μ m thickness from acrylic adhesive varnish. Next, the transfer foil constituted as mentioned above is used to apply in-mold transfer processing to a tray-shaped molded product using a styrene resin or an acrylic resin and the release varnish layer being a separation layer is separated to remove the base sheet.

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